

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

TRANSMITTAL FORM (to be used for all correspondence after initial filing)		Application Number	10/615,416
		Filing Date	July 7, 2003
		First Named Inventor	David Scott Wishart
		Art Unit	1641
		Examiner Name	Unassigned
Total Number of Pages in This Submission		Attorney Docket Number	080586-000100US

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): USPTO forms SB08A & SB08B (five pages) copies of 57 cited foreign patent publications and non-patent references; Return Postcard
Remarks: The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual	Townsend and Townsend and Crew LLP Kenneth R. Allen	Reg. No. 27,301
Signature	<i>Kenneth R. Allen</i>	
Date	Dec 17, 2003	

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Roger Hylton		
Signature	<i>RH</i>	Date	12/17/03



PATENT

Attorney Docket No.: 080586-000100US

Client Reference No.: 82611-5D

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

DAVID SCOTT WISHART et al.

Application No.: 10/615,416

Filed: July 7, 2003

For: AUTOMATIC IDENTIFICATION OF
COMPOUNDS IN A SAMPLE MIXTURE
BY MEANS OF NMR SPECTROSCOPY

Examiner: Unassigned

Art Unit: 1641

SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT UNDER 37 CFR
§1.97 and §1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the foreign patent publications and non-patent references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Respectfully submitted,

Kenneth R. Allen
Reg. No. 27,301

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 650-326-2422
KRA:rn timer
60100446 v1



Substitute for form 1449A/PTO		Complete if Known			
		Application Number	10/615,416		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Filing Date	July 7, 2003		
		First Named Inventor	David Scott Wishart		
		Art Unit	1641		
		Examiner Name	Unassigned		
Sheet	1	of	5	Attorney Docket Number	080586-000100US

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	1	2003/0023386	01-30-2003	Aranibar et al.	
	2	2002/0145425	10-10-2002	Ebbels et al.	
	3	6,063,026	05-16-2000	Schauss et al.	
	4	6,035,246	03-07-2000	Wagner	
	5	5,926,773	07-20-1999	Wagner	
	6	5,887,588	03-30-1999	Usenius et al.	
	7	5,878,746	03-09-1999	Lemelson	
	8	5,822,219	10-13-1998	Chen et al.	
	9	5,726,570	03-10-1998	Spraul et al.	
	10	5,710,713	01-20-1998	Wright et al.	
	11	5,685,300	11-11-1997	Kuenstner	
	12	5,668,373	09-16-1997	Robbat Jr., et al.	
	13	5,629,210	05-13-1997	Hercules et al.	
	14	5,618,734	04-08-1997	Niwa et al.	
	15	5,617,861	04-08-1997	Ross et al.	
	16	5,559,038	09-24-1996	Kolhouse et al.	
	17	5,517,856	05-21-1996	Hofmann et al.	
	18	5,470,750	11-28-1995	Bar-or	
	19	5,446,681	08-29-1995	Gethner	
	20	5,397,987	03-14-1995	Garritano	
	21	5,397,989	03-14-1995	Spraul et al.	
	22	5,338,687	08-16-1994	Lee	
	23	5,318,031	06-07-1994	Mountford et al.	
	24	5,313,406	05-17-1994	Kauppinen et al.	
	25	5,308,982	05-03-1994	Ivaldi et al.	
	26	5,283,036	02-01-1994	Hofmann et al.	
	27	5,261,405	11-16-1993	Fossel	
	28	5,258,712	11-02-1993	Hofmann et al.	
	29	5,247,175	09-21-1993	Schoen et al.	
	30	5,231,031	07-27-1993	Szwergold et al.	
	31	5,229,716	07-20-1993	Demoment et al.	
	32	5,220,302	06-15-1993	Nunnally et al.	
	33	5,218,529	06-08-1993	Meyer et al.	
	34	5,213,101	05-25-1993	Fossel	
	35	5,207,715	05-04-1993	Fossel	
	36	5,198,766	03-30-1993	Spraul et al.	
	37	5,146,166	09-08-1992	Bartuska	
	38	5,124,267	06-23-1992	Humpel et al.	
	39	5,072,732	12-17-1991	Rapoport et al.	
	40	5,055,389	10-08-1991	Bar-Or et al.	
	41	5,046,846	09-10-1991	Ray et al.	

Examiner Signature	Date Considered
-----------------------	--------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.
60100446 v1



Substitute for form 1449A/PTO

Complete if Known

(use as many sheets as necessary)

Sheet

2

C

5

Application Number

10/615,416

Filing Date

July 7, 2003

First Named Inventor

David Scott Wishart

Art Unit

1641

Examiner Name

Unassigned

Attorney Docket Number

080586-000100US

U.S. PATENT DOCUMENTS+

[illegible]

FOREIGN PATENT DOCUMENTS

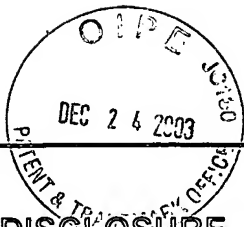
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	† ⁶
		Number ⁴					
		Country Code ³	Kind Code ⁵ (if known)				
	54	EP0350546		01-17-1990	Advanced Techtronics		<input type="checkbox"/>
	55	WO00/65366		11-02-2000	Lipomed, Inc.		<input type="checkbox"/>
	56	WO00/51054		08-31-2000	Lipomed, Inc.		<input type="checkbox"/>
	57	WO99/54751		10-28-1999	Sorland		<input type="checkbox"/>
	58	WO98/39664		09-11-1998	Universidad Nacional et al.		<input type="checkbox"/>
	59	WO97/47973		12-18-1997	The McLean Hospital Corp.		<input type="checkbox"/>
	60	WO96/38083		12-05-1996	The John Hopkins University		<input type="checkbox"/>
	61	WO94/20863		09-15-1994	Birkbeck College		<input type="checkbox"/>
	62	WO93/03450		02-18-1993	North Carolina State Univ.		<input type="checkbox"/>
	63	WO92/11807		07-23-1992	The Beth Israel Hospital		<input type="checkbox"/>
	64	WO91/16852		11-14-1991	Chiscan AB		<input type="checkbox"/>
	65	WO91/10128		07-11-1991	The Beth Israel Hospital		<input type="checkbox"/>

**Examiner
Signature**

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

60100446 v1



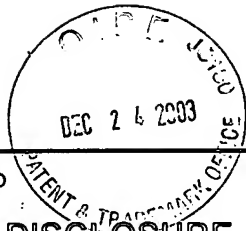
Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/615,416
				Filing Date	July 7, 2003
				First Named Inventor	David Scott Wishart
				Art Unit	1641
				Examiner Name	Unassigned
Sheet	3	of	5	Attorney Docket Number	080586-000100US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	66	"NMR Lipoprotein Subclass Analysis: NMR LipoProfile Research Service", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610, http://www.lipoprofile.com/lipomed/Products_Technology/R&D/R&D.htm [printed March 14, 2001]	
	67	"Frequently Asked Questions", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610, http://www.lipoprofile.com/lipomed/FAQS/faq.html [printed March 14, 2001]	
	68	"Understanding the NMR LipoProfile", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610 (2001).	
	69	"Varian Nuclear Magnetic Resonance Systems - Bayesian Software", Varian, Inc., 3120 Hansen Way, Palo Alto, CA 94304-1030, USA, http://www.varianinc.com/nmr/products/software/bayesianonepr.html [printed March 19, 2001]	
	70	"About INCA", http://www.bruker.com/nmr/Products/INCA/index.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	71	"INCA Siting", http://www.bruker.com/nmr/Products/INCA/inca_siting.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	72	"INCA Configurations", http://www.bruker.com/nmr/Products/INCA/inca_config.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	73	"About NMR Suite", http://www.bruker.com/nmr/Software/software.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	74	"NMR Suite - AMIX", http://www.bruker.de/analytic/nmr-dep/nmrsoftw/prodinfo/au_home/amix/index.htm [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	75	"AMIX Tutorial", http://www.bruker.de/analytic/nmr-dep/nmrsoftw/prodinfo/amix_aurelia/amix_tourTOC.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	76	"Who we are", http://www.acdlabs.com/company.html [printed March 19, 2001], Advanced Chemistry Development Inc., 90 Adelaide Street West, Suite 702, Toronto, Ontario, M5H 3V9, Canada.	
	77	"ACD/Labs - Spectral Laboratory", http://www.acdlabs.com/products/spec_lab [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	78	"ACD/Combi NMR", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr/tech.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	79	"ACD/Combi NMR: Overview - Combinatorial NMR Data Processing and Analysis Software", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	80	"Combi NMR Interface", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr/intr.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	81	"NMR Spectroscopy", http://www.acdlabs.com/products/spec_lab/nmr.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

¹ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete If Known	
				Application Number	10/615,416
				Filing Date	July 7, 2003
				First Named Inventor	David Scott Wishart
				Art Unit	1641
				Examiner Name	Unassigned
Sheet	4	of	5	Attorney Docket Number	080586-000100US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	82	"ACD/CNMR: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/cnmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	83	"ACD/HNMR: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/hnmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	84	"Software Reviews: ACD/NMR Processor", http://www.acdlabs.com/publish/acd_nmr_proc.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	85	"CNMR Spectrum generator v4.5," http://ilab.acdlabs.com/webstore/dcnmrngen.htm [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	86	"ACD/2D NMR Predictor: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/2d_nmr [printed March 19, 2001], Advanced Chemistry Development Inc., 90 Adelaide Street West, Suite 702, Toronto, Ontario, M5H 3V9, Canada.	
	87	"ACD/NMR Manager, Version 5.0 for Windows, Application Note", 2001, Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	88	BAMFORTH et al "Diagnosis of inborn errors of metabolism using 1H NMR spectroscopic analysis of urine," J. Inher. Metab. Dis., SSIEM and Kluwer Academic Publishers, printed in the Netherlands, 22:297-301 (1999).	
	89	BRUST "NMR Chemical Shifts", Nuclear Magnetic Resonance, University of Southern Mississippi, http://www.psrc.usm.edu/macrog/nmrst.htm [printed November 28, 2000].	
	90	BRUST "Nuclear Magnetic Resonance Spectroscopy", University of Southern Mississippi, http://www.psrc.usm.edu/macrog/nmr.htm [printed November 28, 2000].	
	91	BUSZKO "A World Wide Web Interface to an NMR Spectrometer," available at < http://micro.ifas.ufl.edu > (1997, 2003).	
	92	EMSLEY et al. "Magnetic Resonance, Historical Perspective," <u>Encyclopedia of Spectroscopy and Spectrometry</u> , Academic Press: pp. 1232-1240 (2000).	
	93	FREEDMAN et al. "Relation of Lipoprotein Subclasses as Measured by Proton Nuclear Magnetic Resonance Spectroscopy [...]," Reprint from Arteriosclerosis, Thrombosis and Vascular Biology 18:1046-1053 (1998).	
	94	GOLOTVIN et al. "Improved Baseline Correction of FT NMR Spectra", NMR Newsletter, October 1999, < http://www.acdlabs.com/publish/nmr_ar.html > (visited October 30, 2001), Canada, pp. 1-3, Advanced Chemistry Development Inc., Canada.	
	95	HOLMES et al "Proton NMR analysis of plasma from renal failure patients: evaluation of sample preparation and spectral-editing methods," Journal of Pharmaceutical & Biomedical Analysis 8:955-958 (1990).	
	96	HOLMES et al, "Automatic Data Reduction and Pattern Recognition Methods for Analysis of 1H Nuclear Magnetic Resonance Spectra of Human Urine...", Analytical Biochemistry 220:284-296 (1994).	
	97	HORNAK "The Basics of NMR," available at < http://www.cis.rit.edu/htbooks/nmr > (1997, 2002).	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/615,416	
			Filing Date	July 7, 2003	
			First Named Inventor	David Scott Wishart	
			Art Unit	1641	
			Examiner Name	Unassigned	
Sheet	5	of	5	Attorney Docket Number	080586-000100US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	98	LINDON et al. "Biofluids Studied by NMR," In <u>Encyclopedia of Spectroscopy and Spectrometry</u> . Academic Press, pp. 98-116 (2002).	
	99	LINDON et al. "Multicentre Assessment of Small Molecule Quantitation in Human Blood Plasma Using 1H NMR Spectroscopy," <u>Journal of Magnetic Resonance Analysis</u> , England, pp. 66-74(1996).	
	100	LINDON et al. "NMR Spectroscopy of Biofluids," <u>Annual Reports on NMR Spectroscopy</u> , Academic Press, ISBN 012505338X, 38:1-88 (1999).	
	101	NICHOLSON et al "750 MHz 1H and 1H-13C NMR Spectroscopy of Human Blood Plasma," <u>Analytical Chemistry</u> , 67:793-811 (1995).	
	102	NICHOLSON et al. "Metabonomics: understanding the metabolic responses of living systems [...] via multivariate statistical analysis of biological NMR spectroscopic data," <u>Xenobiotica</u> , UK, 29:1181-1189 (1999).	
	103	"Nuclear Magnetic Resonance with a 300 MHz Fourier Transform Spectrometer," <u>Modern Physics Laboratory Manual</u> , Middlebury College, Dept. of Physics, USA, < http://www.middlebury.edu/~PHManual/nuclearmag.html > (1992, 1993, 2001).	
	104	PRESS et al. "Parabolic Interpolation and Brent's Method in One Dimension," <u>Numerical Recipes in C - The Art of Scientific Computing</u> , Second edition, Cambridge University Press, pp. 402-405, USA (1992).	
	105	ROBERTSON et al. "Metabonomics: Evaluation of Nuclear Magnetic Resonance (NMR) and Pattern Recognition Technology for [...] Toxicants," <u>Toxicological Sciences</u> 57:326-337 (2000).	
	106	SMITH et al. "Nuclear Magnetic Resonance Spectroscopy," <u>Analytical Chemistry</u> , Vol. 34:509R-518R (1995).	
	107	SPRAUL et al "Flow Injection Proton [NMR] Spectroscopy Combined With Pattern Recognition Methods [...]" <u>Analytical Communications</u> , Royal Society of Chemistry (UK) 34:1-3 (1997).	
	108	SYKES et al. "Checking pH without an Electrode", <u>The NMR Newsletter</u> , 966 Elsinore Court Palo Alto, CA, 94303, 30 June 1998 (received 7/3/98), 479-11 and 479-12 (1998).	
	109	WILLIAMS et al. "The ABC of Metabonomics: Automated Baseline Correction," March 11- 16, 2001, Orlando, Florida, USA, 42nd ENC, ACD Users Meeting, pp. 1-8 (2001).	
	110	WISHART et al. "Magnetic Resonance Diagnostics: A New Technology for High-Throughput Clinical Diagnostics," <u>Clin Chem</u> 47:1918-1921 (2001).	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

¹ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.